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| EXAMINER |
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TROY, DANIEL J

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ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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| | | | |
|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 10/574,532 | Applicant(s) BANNASCH ET AL. | |
| | Examiner DANIEL J. TROY | Art Unit 3641 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 September 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) 1-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13, 15-26 and 28 is/are rejected.
- 7) ☒ Claim(s) 14 and 27 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 February 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

2. A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
3. Claims 13, 18, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herrmann ("tarnen und Tauschen bei der Marine" - applicant's admitted prior art in the specification) in view of Solomon (7,047,861).
4. Regarding claims 13 and 26, Herrmann discloses, a system for protecting ships against terminal homing phase-guided missiles comprising a target data analysis system (Page 3 L19-21) comprising a computer (Page 3 L24) sensors for detecting terminal homing phase-guided missiles and its expected trajectory (Page 3 L23); means to measure the wind speed and direction (P3 L29-30); motion and/or navigation sensors for detecting the ship's own data: traveling speed, direction of travel, rolling and pitching motions (Page 3 L31-33); a fire control calculator which inherently communicates with the computer (Page 4 L1-4); at least one decoy launcher arranged on the ship and dirigible in azimuth and elevation (Page 3 L27), but lacks specifically teaching the respective attack structure being stored which allow to generate a particular decoy pattern.
5. Solomon teaches that it is known in the art to have a database with appropriate decoy patterns and respective attack structures are stored (column 16 lines 50-52;

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column 20 lines 6-33; and figure 16). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Hermann, by using a database with appropriate decoy patterns and respective attack structures as taught by Solomon, to save time and prioritize attacks to better protect the ship.

6. Regarding Claim 18, the device as claimed is described above except for NTDS, RS22, RS422, EHTERNET, IR, or BLUETOOTH data interfaces. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use NTDS, RS22, RS422, EHTERNET, IR, or BLUETOOTH data interfaces since it was known in the art that any of these listed data interfaces can be used to transfer data from one device to another.

7. Claims 15, 19, 24, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herrmann ("tarnen und Tauschen bei der Marine" - applicant's admitted prior art) in view of Solomon (7,047,861) in view of Salzeder (US Publication Number 2002/0149510 A1).

8. Regarding claims 15, 24, and 25, Hermann and Solomon disclose the invention as previously described, but lack teaching the specific components and operation of the decoy ammunitions.

9. Salzeder teaches the decoy ammunitions comprise integrated delay elements freely programmable by means of the fire control (P [0050] describes the "walk-off" which includes delays programmed in the ammunitions). Noting that the velocity of departure is dependent on the target and therefore Salzeder is capable of firing decoys with the same departure velocity. It would have been obvious to one of ordinary skill in

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the art at the time the invention was made to modify the apparatus of Hermann and Solomon, by using the delay time as taught by Solomon, to increase the versatility of the decoy ammunitions.

10. Regarding claim 19, Salzeder teaches radar reflectors (P [0031]).

11. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over as being unpatentable over Herrmann ("tarnen und Tauschen bei der Marine" - applicant's admitted prior art) in view of Solomon (7,047,861) in further view of Darnall (US Patent Number 7086318 B1).

12. Regarding claim 16, Herrmann in view of Solomon discloses an apparatus as described previously, but lacks a drive with an angular acceleration of at least $50 \frac{\text{deg}}{\text{s}^2}$.

13. Darnall teaches that it is known in the art to use a drive with an angular acceleration of at least $50 \frac{\text{deg}}{\text{s}^2}$ (C3 L38). The use of a drive with an angular acceleration of at least $50 \frac{\text{deg}}{\text{s}^2}$ can help the system quickly reach the desired firing position.

14. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Herrmann in view of Solomon, by using a drive with an angular acceleration of at least $50 \frac{\text{deg}}{\text{s}^2}$ similar to that disclosed by Darnall, to help the system quickly reach the desired firing position.

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15. Claims 17 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herrmann ("tarnen und Tauschen bei der Marine" - applicant's admitted prior art) in view of Solomon (7,047,861) in further view of Maury (US Patent Number 4222306).

16. Regarding claims 17 and 28, Herrmann in view of Solomon discloses an apparatus as described previously, but lacks the use of the ship's on-board reconnaissance radars.

17. Maury teaches that it is known in the art to use of the ship's on-board reconnaissance radars (C13 L41-46). The use of the ship's on-board reconnaissance radars reduces cost by only using one radar system.

18. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Herrmann in view of Solomon, by using the ship's on-board reconnaissance radars similar to that disclosed by Maury, to reduce costs.

19. Claims 20-23 rejected under 35 U.S.C. 103(a) as being unpatentable over as being unpatentable over Herrmann ("tarnen und Tauschen bei der Marine" - applicant's admitted prior art) in view of Solomon (7,047,861) in view of Salzeder (US Publication Number 2002/0149510 A1) in further view of Thornburg (US Patent Number 4852456).

20. Regarding claims 20, 22, and 23, Herrmann, Solomon, and, Salzeder disclose an apparatus as described previously, but lacks unfolding by means of gases.

21. Thornburg teaches that it is known in the art to unfold by means of gases. The use of unfolding by gases provides a fast and reliable means for unfolding the decoy.

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22. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Herrmann, Solomon, and, Salzeder, by using gases as unfolding means similar to that disclosed by Thornburg, to provide a fast and reliable means for unfolding the decoy.

23. Regarding claim 21 Salzeder discloses a radar reflector (P [0031]).

24. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Herrmann ("tarnen und Tauschen bei der Marine" - applicant's admitted prior art in the specification) in view of Robertson et al. (5,635,662).

25. Regarding claim 13, Herrmann discloses, a system for protecting ships against terminal homing phase-guided missiles comprising a target data analysis system (Page 3 L19-21) comprising a computer (Page 3 L24) sensors for detecting terminal homing phase-guided missiles and its expected trajectory (Page 3 L23); means to measure the wind speed and direction (P3 L29-30); motion and/or navigation sensors for detecting the ship's own data: traveling speed, direction of travel, rolling and pitching motions (Page 3 L31-33); a fire control calculator which inherently communicates with the computer (Page 4 L1-4); at least one decoy launcher arranged on the ship and dirigible in azimuth and elevation (Page 3 L27), but lacks specifically teaching the respective attack structure being stored which allow to generate a particular decoy pattern.

26. Robertson teaches that it is known in the art to have a database with appropriate decoy patterns and respective attack structures are stored (column 4 lines 19-24). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Herrmann, by using a database with appropriate decoy

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patterns and respective attack structures as taught by Robertson, to save time and prioritize attacks to better protect the ship.

Allowable Subject Matter

27. Claims 14 and 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

28. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

29. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL J. TROY whose telephone number is (571)270-3742. The examiner can normally be reached on Monday - Thursday, 8:00 a.m. - 5:00 p.m., EST.

30. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on (571) 272-6873. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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31. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/DJT/

/Stephen M. Johnson/
Primary Examiner, Art Unit 3641